

## **IN THE CLAIMS**

Page 6, line 1, change "Patent Claims to --What is claimed is:--.

Claims 1-25 (cancelled).

26. (New) An arrangement for the production of photomasks, comprising:  
at least one defect control system; and  
at least one repair system or measurement;  
said at least one defect control system being connected to said at least one repair system or measurement by a continuous data connection or online connection.

27. (New) The arrangement according to claim 26, wherein a direct data exchange or an indirect exchange is carried out by means of a central device.

28. (New) The arrangement according to claim 26, wherein at least one defect control system and at least one repair system are connected to one another by data in such a way that the results obtained on one of the systems are immediately available to the other system for further processing.

29. (New) The arrangement according to claim 26, wherein an AIMS system is provided as defect control system.

30. (New) The arrangement according to claim 26, wherein an electron beam system is provided for defect control.

31. (New) The arrangement according to claim 26, wherein an electron beam-based deposition system is provided as repair system.

32. (New) The arrangement according to claim 26, wherein a laser ablation system is provided as repair system.

33. (New) The arrangement according to claim 26, wherein an AFM (Atomic Force Microscope) is provided as a measurement system and/or repair system.

34. (New). The arrangement according to claim 26, wherein a FIB (Focused Ion

Beam) system is provided as a measurement system and/or repair system.

35. (New) The arrangement according to claim 26, wherein a connection for data exchange is carried out by the control units of the system.

36. (New) The arrangement according to claim 26, wherein a common co control unit is provided for coordinating between measurement and repair.

37. (New) The arrangement according to claim 26, wherein the defect control system and repair system are arranged in a common measurement chamber.

38. (New) The arrangement according to claim 37, wherein a vacuum is generated or a protective atmosphere is provided in the common chamber.

39. (New) The arrangement according to claim 26, wherein a transport system is provided between the defect control system and repair system.

40. (New) The arrangement according to claim 26, wherein a common platform with adjusting devices is provided for the defect control system and repair system.

41. (New) The arrangement according to claim 26, wherein the direction of the measurement axis and repair axis intersect at a common point and/or the working areas of the measurement system and repair system overlap.

42. (New) The arrangement according to claim 41, wherein the direction of the repair axis is inclined relative to the measurement axis of the AIMS system.

43. (New) The arrangement according to claim 26, wherein the measurement system is arranged on the side of the mask remote of the structure side and the repair system is arranged on the structure side.

44. (New) The arrangement according to claim 43, wherein the measurement system works in transmission mode.

45. (New) The arrangement according to claim 43, wherein the measurement system detects the radiation transmitted through the mask, wherein additional illumination is

coupled in on the side remote of the measurement system, preferably by means of a beam splitter or deflecting element.

46. (New) The arrangement, particularly according to claim 26, wherein an AIMS system is operated under vacuum conditions.

47. (New) A method for the production of photomasks, particularly with an arrangement according to claim 26, comprising the steps of having a defect control system convey detected defects via a data connection for data exchange to at least one repair system that controls the repair process based on the determined defects.

48. (New) The method according to claim 47, wherein measurement and repair are carried out simultaneously.

49. (New) The method according to claim 47, with a sequence of repair and measurement that is carried out repeatedly.

50. (New) The method according to claim 45, wherein the illumination light of the measurement system is used for removal of material.